

B.1.1.0
Patents

15/5/1 (Item 1 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2003 Thomson Derwent. All rts. reserv.

014603998 **Image available**
WPI Acc No: 2002-424702/200245
XRPX Acc No: N02-333885

Neural prosthesis for implantation within eye, includes
microchannels which are located within foldable substrate sup- porting
integrated circuits/electrode array, for expanding substrate

Patent Assignee: MASSACHUSETTS INST TECHNOLOGY (MASI)
Inventor: RIZZO J; SHIRE D; WYATT J; SHIRE D B; WYATT J L
Number of Countries: 022 Number of Patents: 003

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 6368349	B1	20020409	US 2000717738	A	20001121	200245 B
WO 200241814	A2	20020530	WO 2001US43241	A	20011120	200245
WO 200241754	A2	20020530	WO 2001US43343	A	20011119	200245

Bad
Date

Priority Applications (No Type Date): US 2000717738 A 20001121

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
US 6368349	B1	6	A61F-002/16	
WO 200241814	A2 E		A61F-009/00	
Designated States (National): CA JP				
Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR				
WO 200241754	A2 E		A61B-000/00	
Designated States (National): CA JP				
Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR				

Abstract (Basic): US 6368349 B1

NOVELTY - The microchannels (18) are arranged within the foldable substrate for expanding the substrate. The integrated circuits/electrode array (16) are supported by the substrate.

USE - **Neural prosthesis** for **implantation** within eye for providing sufficient vision to visually handicapped people.

ADVANTAGE - The foldable substrate in the expanded state provides close opposition between the electrode array and the neural tissue, thereby providing sufficient semiconductor area to implement the power control and driving functions necessary for its operation without cutting or dragging on the retina. The use of biocompatible materials and sufficiently low currents, avoids chemical and electrochemical toxicity. The prosthesis is designed such that it can be easily inserted through a narrow incision in the sclera. If the surgeon desired to reduce or increase the rigidity of the prosthesis, gas or fluid used to **inflate** the prosthesis is simply added or removed.

DESCRIPTION OF DRAWING(S) - The figure shows a plan view of the **inflatable** prosthesis.

Integrated circuits/electrode array (16)

Microchannels (18)

pp; 6 DwgNo 1/3

Title Terms: NEURAL; PROSTHESIS; IMPLANT; EYE; MICROCHANNEL; LOCATE; FOLD; SUBSTRATE; PORT; INTEGRATE; CIRCUIT; ELECTRODE; ARRAY; EXPAND; SUBSTRATE

Derwent Class: P31; P32; S05; U12; U13

International Patent Class (Main): A61B-000/00; A61F-002/16; A61F-009/00

File Segment: EPI; EngPI

15/5/2 (Item 2 from file: 350)
DIALOG(R) File 350:Derwent WPIX
(c) 2003 Thomson Derwent. All rts. reserv.

013333983 **Image available**
WPI Acc No: 2000-505922/200045
XRAM Acc No: C00-151872
XRPX Acc No: N00-374121

**Dorsonasal drug delivery devices used for intranasal delivery of
composition, especially local anesthetic, for treatment of cerebral
neurovascular disorders e.g. migraine**

Patent Assignee: LEVIN B H (LEVI-I)
Inventor: LEVIN B H
Number of Countries: 090 Number of Patents: 003
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200044432	A1	20000803	WO 2000US2121	A	20000127	200045 B
AU 200028622	A	20000818	AU 200028622	A	20000127	200057
US 6491940	B1	20021210	US 99117398	A	19990127	200301
			US 2000492946	A	20000127	

Priority Applications (No Type Date): US 99117398 P 19990127; US 2000492946
A 20000127

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
WO 200044432	A1	E 145	A61M-031/00	

Designated States (National): AE AL AM AT AU AZ BA BB BG BR BY CA CH CN
CR CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP
KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE
SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR
IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW

AU 200028622	A	A61M-031/00	Based on patent WO 200044432
US 6491940	B1	A61F-013/00	Provisional application US 99117398

Abstract (Basic): WO 200044432 A1

NOVELTY - Dorsonasal drug delivery devices used for intranasal
delivery of composition for treatment of cerebral neurovascular
disorders.

DETAILED DESCRIPTION - Dorsonasal drug delivery device comprises a
body with a shape conforming to the shape of the human nasal cavity.
The body has a proximal end and a distal portion with a distal end. The
distal portion can be urged through the nostril into the apex of the
nasal cavity without injuring the patient.

INDEPENDENT CLAIMS are included for:

(1) an anatomically adapted dorsonasal delivery nozzle with a body
comprising:

(i) a delivery lumen extending through it from its proximal end to
an outlet port at its distal portion; and

(ii) an exterior portion with: a flattened portion situated between
the proximal end and the distal portion for seating the nozzle against
the nasal septum; an anterior portion between the proximal end and the
distal portion for seating the nozzle against the external nasal
cartilage; and an indented portion between the proximal end and the
distal portion for seating the nozzle against the nasal concha. When
the nozzle is seated, the outlet port is situated within the nasal
cavity so that an axis extending through the discharge port is offset
from the apex of the nasal cavity by no more than 30 degrees;

(2) methods for dorsonasally administration using the device or
nozzle;

(3) manually pressure-actuated drug delivery device comprising an

intranostril applicator for insertion into a nostril, a drug container and a manually pressure-actuated actuator attached to at least the applicator or container and actuably fluidly connecting the applicator and the container. Drug from the container is provided to the applicator upon application of pressure by the patient to the actuator. The actuator is positioned with respect to the applicator so that actuating pressure must be applied in a direction which is not co-linear with the axis of the nostril (or alternatively which is not parallel to the axis of the nostril);

(4) inhibiting cerebral neurovascular disorders by intranasal administration of a long acting local anesthetic composition further comprising an anti-epileptic, phenytoin sodium, a serotonin (especially 5-HT1F) agonist, LY334370, a sesquiterpene lactone, parthanolide or Tanacetum parthenium or an extract of it;

(5) a systemic drug delivery device comprising a body shaped to conform to the shape of the nasal cavity, with a proximal end and a distal portion which can be urged through the nostril into the apex of the nasal cavity without injuring the patient. The body has an applicator portion comprising: a portion on which the drug is present; a portion to which the drug may be supplied; and/or a lumen through which the drug may be delivered. The applicator is adapted for location close to a highly vascularized portion of the nasal epithelium;

(6) an anatomically adapted intranasal delivery nozzle for systemically administering a composition, comprising a body with delivery lumen extending through it and an exterior portion as in (1) (see above);

(7) inhibiting cerebral **neurovascular** disorders comprising energizing a dorsonasally **implanted** electronic **neural** stimulator;

(8) a local anesthetic amide compound of formula (I); and

(9) a kit comprising a long-acting local anesthetic composition and a dorsonasal drug delivery device for administering the composition.

R=Et, Ph or 5-8C alkyl;

R'=2,6-dimethylphenyl, thiophenyl or 2,5-dimethylthiophenyl;

R'', R'''=straight chain alkyl where R'' and R''' have a total of 4-6C; or

R''+R'''=5-7 membered heteroalkyl.

ACTIVITY - Analgesic; anesthetic; antimigraine; anticonvulsant; vasotropic.

MECHANISM OF ACTION - None given.

USE - The devices are used for intranasal administration of compositions, especially local anesthetics, for treatment of cerebral neurovascular disorders. They are used in the treatment of tinnitus, cerebrovascular spasm, seizure, diseases manifested during or after acute ischemic events or neurovascular headache (especially cluster headache, headache associated with vascular disease or migraine) (all claimed). Dorsonasal administration of ropivacaine to patients experiencing head pain and/or other symptoms associated with acute migraine rapidly inhibited the migraine in 92 % of the patients with only 5.4 % rebound after 24 hours.

ADVANTAGE - The methods/devices provide extended duration of anesthesia

DESCRIPTION OF DRAWING(S) - The figure shows the dorsonasal delivery apparatus.

Body (100)

Outlet Port (102)

Distal End (103)

Apex (A)

Inferior Nasal Conchae (IC)

Middle Nasal Conchae (MC)

Superior Nasal Conchae (SC)

Nostril (N)

pp; 145 DwgNo 4a/7
Title Terms: DRUG; DELIVER; DEVICE; INTRANASAL; DELIVER; COMPOSITION; LOCAL
; ANAESTHETIC; TREAT; CEREBRAL; NEUROVASCULAR; DISORDER; MIGRAINE
Derwent Class: B03; B05; B07; P32; P34
International Patent Class (Main): A61F-013/00; A61M-031/00
File Segment: CPI; EngPI

15/5/3 (Item 3 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2003 Thomson Derwent. All rts. reserv.

011064266 **Image available**
WPI Acc No: 1997-042191/199704
XRAM Acc No: C97-013262
XRPX Acc No: N97-035153

Device for dilating tissue for treating hernia, installing implants, etc
- reduces tissue trauma and reduces operation duration and has glove or
finger sheath with balloon at distal end of finger compartment.

Patent Assignee: UNIV JEFFERSON THOMAS (UYJE-N)
Inventor: HIRSCH I H
Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 5582620	A	19961210	US 95527955	A	19950914	199704 B

Priority Applications (No Type Date): US 95527955 A 19950914

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 5582620	A		14	A61B-017/00	

Abstract (Basic): US 5582620 A

A device for radially distending a soft tissue space has a, pref
silicone, glove (50) or finger sheath with a compartment (54) for at
least one finger and a distention balloon (62) at the distal end of the
compartment. In some aspects a fluid flow assembly (40) **inflates**
/deflates the balloon. Also claimed is a method of manipulating an
internal bodily area of a patient using the device as above.

USE - Dilation of soft tissue during operations for treating
hernias, penile implants, breast augmentation, inserting cardiac
pacemaker, inserting **neuro-stimulator implants**, laparoscopic
surgery, etc.

ADVANTAGE - Shortens operation duration and reduces tissue trauma.

Dwg.6/12

Title Terms: DEVICE; DILATED; TISSUE; TREAT; HERNIA; INSTALLATION; IMPLANT;
REDUCE; TISSUE; TRAUMA; REDUCE; OPERATE; DURATION; GLOVE; FINGER; SHEATH;
BALLOON; DISTAL; END; FINGER; COMPARTMENT

Derwent Class: A96; P21; P31

International Patent Class (Main): A61B-017/00

International Patent Class (Additional): A41D-019/00

File Segment: CPI; EngPI

15/5/4 (Item 4 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2003 Thomson Derwent. All rts. reserv.

009324467 **Image available**
WPI Acc No: 1993-017931/199302
Related WPI Acc No: 1998-240615
XRPX Acc No: N93-013701

Implantable appts. for treatment of brain tumour - uses distensible balloon which enables inherent natural compliance of fluid to conform to cavity outline

Patent Assignee: ONCOCATH INC (ONCO-N); PROXIMA THERAPEUTICS INC (PROX-N); WILLIAMS J A (WILL-I)

Inventor: WILLIAMS J A

Number of Countries: 017 Number of Patents: 013

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 9222350	A1	19921223	WO 92US4141	A	19920515	199302 B
CA 2068281	A	19921215	CA 2068281	A	19920508	199310
EP 586567	A1	19940316	EP 92913085	A	19920515	199411
			WO 92US4141	A	19920515	
JP 6508278	W	19940922	WO 92US4141	A	19920515	199442
			JP 93500858	A	19920515	
US 5429582	A	19950704	US 91715923	A	19910614	199532
EP 586567	A4	19960228	EP 92913085	A		199641
US 5611767	A	19970318	US 91715923	A	19910614	199717
			US 94307165	A	19940916	
CA 2068281	C	19971202	CA 2068281	A	19920508	199809
EP 970724	A2	20000112	EP 92913085	A	19920515	200008
			EP 99119829	A	19920515	
US 6022308	A	20000208	US 91715923	A	19910614	200014
			US 94307165	A	19940916	
			US 97818966	A	19970314	
EP 586567	B1	20000726	EP 92913085	A	19920515	200036
			WO 92US4141	A	19920515	
			EP 99119829	A	19920515	
US 6083148	A	20000704	US 91715923	A	19910614	200036
			US 94307165	A	19940916	
			US 97818966	A	19970314	
			US 98158682	A	19980922	
DE 69231294	E	20000831	DE 631294	A	19920515	200050
			EP 92913085	A	19920515	
			WO 92US4141	A	19920515	

Priority Applications (No Type Date): US 91715923 A 19910614; US 94307165 A 19940916; US 97818966 A 19970314; US 98158682 A 19980922

Cited Patents: 1.Jnl.Ref; US 3324847; US 4417576; US 4816016; US 5106360; DE 3725691; EP 205384; EP 340881; GB 2105201; US 3872856; US 4292960; US 4763642; US 5125888; WO 9004365; WO 9105528; WO 9210932; WO 9309724

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 9222350	A1	E	41	A61N-005/02	
					Designated States (National): JP
					Designated States (Regional): AT BE CH DE DK ES FR GB GR IT LU MC NL SE
CA 2068281	A			A61B-017/00	
EP 586567	A1	E	2		Based on patent WO 9222350
					Designated States (Regional): DE FR GB IT
JP 6508278	W			A61M-037/00	Based on patent WO 9222350
US 5429582	A		12		
US 5611767	A		12		Cont of application US 91715923
					Cont of patent US 5429582
CA 2068281	C			A61B-017/00	
EP 970724	A2	E		A61N-005/02	Div ex application EP 92913085
					Div ex patent EP 586567
					Designated States (Regional): DE FR GB IT
US 6022308	A			A61N-005/02	Cont of application US 91715923
					Div ex application US 94307165
					Cont of patent US 5429582
					Div ex patent US 5611767

EP 586567	B1 E	A61N-005/02	Related to application EP 99119829 Related to patent EP 970724 Based on patent WO 9222350
US 6083148	Designated States (Regional): A	DE FR GB IT A61N-005/02	Cont of application US 91715923 Div ex application US 94307165 Cont of application US 97818966 Cont of patent US 5429582 Div ex patent US 5611767 Cont of patent US 6022308
DE 69231294	E	A61N-005/02	Based on patent EP 586567 Based on patent WO 9222350

Abstract (Basic): WO 9222350 A

The appts. comprises an implantable device (26) provided for treatment of tissue surrounding a cavity (24) left by surgical removal of a brain tumour and includes an **inflatable** balloon (28) which is connected to a fluid receptacle (30) by a catheter (32).

During treatment, radioactive or chemotherapy fluid is injected through a hypodermic needle into the subcutaneously implanted receptacle (30) through an overlying self-sealing dome of silicone elastomer material. The fluid flows through the catheter to **inflate** the balloon so that it fills the cavity and places treatment fluids close to the surrounding brain tissue (16).

ADVANTAGE - Removes risk of infection caused by multiple catheter treatment. Design allows simultaneous treatment applications using cost saving liq. isotopes.

Dwg. 3/10

Title Terms: IMPLANT; APPARATUS; TREAT; BRAIN; TUMOUR; DISTEND; BALLOON;

ENABLE; INHERENT; NATURAL; COMPLIANT; FLUID; CONFORM; CAVITY; OUTLINE

Derwent Class: P31; P32; P34; S05

International Patent Class (Main): A61B-017/00; A61M-037/00; A61N-005/02

International Patent Class (Additional): A61F-007/12; A61N-005/00;

A61N-005/04; A61N-005/10

File Segment: EPI; EngPI

Set	Items	Description
S1	57013	NEURO? OR BRAIN? OR NEURA?
S2	138720	PROSTHES?S OR IMPLANT?
S3	138722	NEUROPROSTHES?S OR S2
S4	53680	INFLAT? OR BLOW? ?(2N)UP
S5	621	S3 AND S4
S6	350	S3(S)S4 AND IC=(A61B OR A61N OR A61F)
S7	256	S6 NOT PY>2000
S8	307	S1(3N)S2 OR NEUROPROSTHES?S
S9	0	S8(5N)S4
S10	0	S8(S)S4
S11	3	S8 AND S4
S12	401	S1(5N)S2 OR NEUROPROSTHES?S
S13	4	S12 AND S4
S14	4	IDPAT (sorted in duplicate/non-duplicate order)
S15	4	IDPAT (primary/non-duplicate records only)

? show files

File 347:JAPIO Oct 1976-2003/Jan(Updated 030506)

(c) 2003 JPO & JAPIO

File 350:Derwent WPIX 1963-2003/UD,UM &UP=200333

(c) 2003 Thomson Derwent

File 371:French Patents 1961-2002/BOPI 200209

(c) 2002 INPI. All rts. reserv.